

CLAIMS

1. Breathable backsheet (1) comprising a water vapour permeable first layer (2) and a water vapour permeable second layer (3) for an absorbent article (4) comprising an absorbent body (5) adjacent the first layer (2), said absorbent article (4) being adapted for use of a user such that the absorbent body (5) during use faces towards the user and such that an outside (6, 11) of the backsheet (1) faces away from the user, said backsheet (1) being water vapour permeable in a direction from the absorbent body (5) to the outside (6, 11) of the backsheet (1), in a Z-direction, characterized in that the backsheet (1) comprises a condensation zone (7) between the two layers (2, 3), said backsheet (2) comprising a hydrophobic distance element placed in the condensation zone (7) creating a space between the first layer (2) and the second layer (3), wherein the first layer (2) is adapted to allow a first amount \dot{m}_1 of mass flow water vapour to pass the first layer (2) in the Z-direction, wherein the second layer (3) is adapted to allow a second amount \dot{m}_2 of mass flow water vapour to pass the second layer (3) in the Z-direction, wherein \dot{m}_2 is less than or equal to \dot{m}_1 , wherein the condensation zone (7) is adapted to temporarily condense and store an amount $t \cdot \dot{m}_c$ of water vapour where \dot{m}_c is the difference between \dot{m}_1 and \dot{m}_2 , and where t is the time period during which the condensed water vapour \dot{m}_c is stored, and where \dot{m}_2 is less than a maximum amount \dot{m}_x of mass flow water vapour allowed to pass the second layer (3) without forming any condense of water vapour on the outside (6, 11) of the backsheet (1).
2. Breathable backsheet (1) according to claim 1, characterized in that the hydrophobic distance element is arranged to condense water vapour within the condensation zone (7).
3. Breathable backsheet (1) according to claim 2, characterized in that the hydrophobic distance element comprises a number of hydrophobic particles (12).

4. Breathable backsheet (1) according to any one of claims 2-3, characterized in that the hydrophobic distance element comprises a three dimensional hydrophobic distance layer (20).
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5. Breathable backsheet (1) according to any one of claims 1-3 claims, characterized in that the first layer (2) has a three dimensional form with raised portions (23) and depressions (24) therebetween, such that the raised portions (23) of the first layers (2) are in
10 contact with the second layer (3), wherein the raised portions (23) of the first layer (2) are arranged to have the function of the hydrophobic distance elements and where the condensation zone (7) is created in the space between the depressions (24) of the first and second layers (2, 3).
- 15 6. Breathable backsheet (1) according to claim 5 claims, characterized in that the second layer (3) has a three dimensional form with raised portions (25) and depressions (26) therebetween, such that the raised portions (23, 25) of the first and second layers (2, 3) are in contact in several points, wherein the raised portions (23,
20 26) of the first layer and second layers (2, 3) are arranged to have the function of the hydrophobic distance elements and where the condensation zone (7) is created in the space between the depressions (24, 26) of the first and second layer (2, 3).
- 25 7. Breathable backsheet (1) according to any one of the preceding claims, characterized in that the first amount \dot{m}_1 of mass flow water vapour is maximum 10000 g/(m²·24hours), when the outside air has a relative humidity of about 90% and a temperature of about 23°C.
- 30 8. Breathable backsheet (1) according to any one of the preceding claims, characterized in that the second amount \dot{m}_2 of mass flow water

vapour is maximum $2700 \text{ g}/(\text{m}^2 \cdot 24\text{hours})$, when the outside air has a relative humidity of about 90% and a temperature of about 23°C .

9. Breathable backsheet (1) according to any one of the preceding claims,
5 characterized in that the condensation zone (7) is an open volume between the first layer (2) and the second layer (3), where the minimum distance between the first layer (2) and the second layer (3) is 0,1 mm.
10. Breathable backsheet (1) according to any one of the preceding claims,
10 characterized in that the features of the backsheet (1) are valid in an environment where the outside (6, 11) of the backsheet (1) is uncovered and exposed to a room temperature of about 20°C .